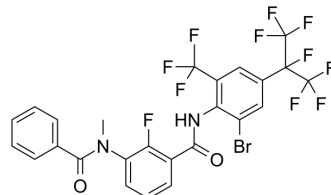


Broflanilide

Cat. No.:	HY-108689												
CAS No.:	1207727-04-5												
Molecular Formula:	C ₂₅ H ₁₄ BrF ₁₁ N ₂ O ₂												
Molecular Weight:	663.28												
Target:	GABA Receptor												
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>2 years</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 year</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	2 years		-20°C	1 year
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	-20°C	1 year											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (376.91 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>1.5077 mL</td> <td>7.5383 mL</td> <td>15.0766 mL</td> </tr> <tr> <td>5 mM</td> <td>0.3015 mL</td> <td>1.5077 mL</td> <td>3.0153 mL</td> </tr> <tr> <td>10 mM</td> <td>0.1508 mL</td> <td>0.7538 mL</td> <td>1.5077 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	1.5077 mL	7.5383 mL	15.0766 mL	5 mM	0.3015 mL	1.5077 mL	3.0153 mL	10 mM	0.1508 mL	0.7538 mL	1.5077 mL
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Please refer to the solubility information to select the appropriate solvent.																						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.08 mg/mL (3.14 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (3.14 mM); Clear solution 																					

BIOLOGICAL ACTIVITY

Description	Broflanilide is a potential insecticide and metabolized to Desmethyl-Broflanilide, which is a potent antagonist at the insect resistant-to-dieldrin (RDL) GABA Receptor, and inhibits <i>S. litura</i> RDL GABAR, with an IC ₅₀ value of 1.3 nM ^[1] .
In Vitro	Broflanilide is an insecticide and metabolized to desmethyl-broflanilide, which is a potent and selective antagonist at the insect resistant-to-dieldrin (RDL) GABA receptor, and inhibits <i>S. litura</i> RDL GABAR, with an IC ₅₀ value of 1.3 nM. Desmethyl-broflanilide shows weak activity against human GABA _A α1β2γ2 receptor, the mammalian GABA _A α1β3γ2 receptor and human glycine receptor (GlyR) α1β with IC ₅₀ s of >3 μM, and less potently inhibits GlyR α1-A288Gβ and GlyR α1-A288G (IC ₅₀ s, 0.706, 0.149 μM) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- B ENVIRON CONTAM TOX. 2023 Jun 24;111(1):8.

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REFERENCES

[1]. Nakao T, et al. Broflaniide: A meta-diamide insecticide with a novel mode of action. Bioorg Med Chem. 2016 Feb 1;24(3):372-7.

Caution: Product has not been fully validated for medical applications. For research use only.

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